

Patent claims

1. The use of astaxanthin-containing plants or parts of plants of the genus *Tagetes* or astaxanthin-containing extracts of astaxanthin-containing plants or parts of
5 plants of the genus *Tagetes* for oral administration to animals.
2. The use according to claim 1, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of
10 astaxanthin-containing plants or parts of plants of the genus *Tagetes* are used for pigmenting animals and the corresponding animal products.
3. The use according to claim 1 or 2, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of
15 astaxanthin-containing plants or parts of plants of the genus *Tagetes* are admixed to animal feed preparations and the animal feed preparation is orally administered to animals.
4. The use according to claim 3, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of
20 astaxanthin-containing plants or parts of plants of the genus *Tagetes*, before the admixture to animal feed preparations, are processed into a form which makes possible admixture to animal feed preparations.
5. The use according to claim 1 or 2, wherein the astaxanthin-containing plants or
25 parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes* are orally administered directly to animals.
6. The use according to claim 5, wherein the astaxanthin-containing plants or parts
30 of plants of the genus *Tagetes* or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes*, before the administration, are processed into a form which makes possible direct oral administration to animals.

7. The use according to one of claims 1 to 6, wherein the astaxanthin-containing plants of the genus *Tagetes* have, by genetic manipulation, been made capable of producing astaxanthin.
- 5 8. The use according to one of claims 1 to 7, wherein the animals are selected from the group consisting of fish, Crustaceae, Galliformes and Anatridae.
9. The use according to claim 8, wherein the animals are selected from the group consisting of Salmonids, shrimps, crabs, chickens, ducks, geese and flamingo.
- 10 10. The use according to one of claims 2 to 9, wherein the animal products are selected from the group consisting of meat, skin, feathers and egg yolks.
11. The use according to one of claims 1 to 10, wherein the plant parts used are
15 flower heads or petals.
12. A method for producing animal feed preparations by combining astaxanthin-containing plants or parts of plants of the genus *Tagetes* or astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the
20 genus *Tagetes* and customary animal feed components.
13. The method according to claim 12, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of
25 astaxanthin-containing plants or parts of plants of the genus *Tagetes* are, before the combination with animal feedstuffs, processed into a form which makes possible combination with animal feedstuffs.
14. A method for pigmenting animals or animal products by oral administration of
30 astaxanthin-containing plants or parts of plants of the genus *Tagetes* or astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes* to animals.
15. A method for producing pigmented animals or animal products by oral
35 administration of astaxanthin-containing plants or parts of plants of the genus *Tagetes* or astaxanthin-containing extracts of astaxanthin-containing plants or

parts of plants of the genus *Tagetes* to animals.

16. The method according to claim 14 or 15, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes* are admixed to animal feed preparations and the animal feed preparation is orally administered to animals.
17. The method according to claim 16, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes*, before admixture to animal feed preparations, are processed into a form which makes possible admixture to animal feed preparations.
18. The method according to claim 14 or 15, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes* are orally administered directly to animals.
19. The method according to claim 18, wherein the astaxanthin-containing plants or parts of plants of the genus *Tagetes* or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus *Tagetes*, before administration, are processed into a form which makes possible direct oral administration to animals.
20. The method according to one of claims 14 to 19, wherein the astaxanthin-containing plants of the genus *Tagetes* have, by genetic manipulation, been made capable of producing astaxanthin.
21. The method according to one of claims 14 to 20, wherein the animals are selected from the group consisting of fish, crustaceae, galliformes and anatradae.
22. The method according to claim 21, wherein the animals are selected from the group consisting of salmonids, shrimps, crabs, chickens, ducks, geese and

flamingo.

23. The method according to one of claims 14 to 22, wherein the animal products are selected from the group consisting of meat, skin, feathers and egg.
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24. The method according to one of claims 14 to 23, wherein the plant parts used are flower heads or petals.
25. The use of astaxanthin-containing plants or parts of plants of the genus Tagetes or astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus Tagetes as animal feed or animal feed additive.
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26. An animal feed preparation comprising astaxanthin-containing plants or parts of plants of the genus Tagetes or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus Tagetes.
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27. A pigmenting agent comprising astaxanthin-containing plants or parts of plants of the genus Tagetes or the astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus Tagetes.
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28. The pigmenting agent according to claim 27, consisting of astaxanthin-containing plants or parts of plants of the genus Tagetes or astaxanthin-containing extracts of astaxanthin-containing plants or parts of plants of the genus Tagetes.
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29. The pigmenting agent according to claim 27 or 28, wherein the plant parts used are flower heads or petals.